OCTOBER 1, 1951 NEWS ISSUE

Electrical World

Price 35 Cents

A McGRAW-HILL PUBLICATION

Raymond A. Gallagher, New President of Pennsylvania Electric Association

Ham Moses and Queen Kilowatt I Page 16

Another Look at Metals Page 30

This six-story modern distillation and hydrolysis building at Waterford, New York, is the heart of General Electric's new silicone plant.

Valerie Giecewicz, secretary at General Electric's silicone plant, demonstrates heat resistance of silicone rubber by frying egg on sheet of it.

Silicone insulation on wire, being applied above, has excellent electrical qualities, toughness, high arc resistance, resistance to deterioration.

G-E silicone progress hints of future uses in electric utility equipment

"The silicone story is just beginning," says Dr. Robert O. Sauer, Section Engineer of G.E.'s silicone operations. "Today's developments merely hint at the applications that lie ahead of us."

Developed by General Electric as a result of research for better insulating materials, silicones first became big news during World War II.

Just where do they stand today?

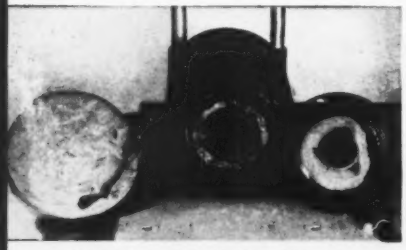
With the production of many versatile varieties of silicone oils, greases, varnishes and rubber, use has skyrocketed. Stable, heat and age-resisting silicone insulation has already added to the dependability and performance of many types of electric equipment. It has played an important part in the increasing use of Class H insulation.

Silicone lubricants and gaskets have contributed to the progress made in gas turbines. A special silicone fluid is being used to reduce cleaning problems with high voltage insulators. And a new waterproofing compound for concrete promises to reduce flaking on dams and other structures.

Present applications are only a fraction of those projected or under development in G-E laboratories. Silicones will play an increasingly important part in future electric utility equipment. General Electric Company, Schenectady 5, New York.

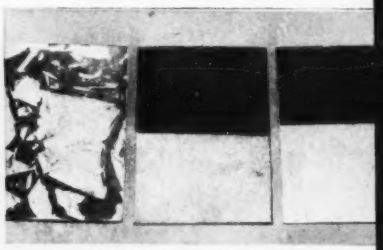
MORE POWER TO AMERICA

GENERAL ELECTRIC



Test bearing packed with silicone lubricating grease. After 5600 hours of operation at 300 F, silicone grease is little changed from new grease, left.

Silicone class H insulation has permited continuous operation of motors at hot-spot temperature as much as 75 C above conventional insulation.



Silicone protective coatings, used for power plant stacks, are unaffected by high temperatures, while conventional type at the left peels and cracks.

The Electrical Week

INDUSTRY MOBILIZATION (Page 14)—Depa sets up uniform procedure for aiding utilities to obtain delivery of controlled materials . . . Mobilizers at Washington must soon act on whether to give the industry materials for its expansion program or to cut it back to bring it in balance with materials available . . . A three-man committee has been named to advise J. H. Gumz, Depa's Northwest representative . . . Zinc will be scarcer.

WASHINGTON—Final Congressional action on three alternate Niagara redevelopment bills is not expected until next year (p 11) . . . Power allocators buck Defense Mobilizer Wilson's move to restore electricity to Northwest aluminum plants (p 12).

ELSEWHERE—Drought hits Southeastern power systems (p 4) . . . Other areas report power is in short supply (p 5) . . . National and international situations cast pall over PEA annual meeting (p 6) . . . Because of the copper strike, copper, not steel, will be the worst bottleneck for the next six months (p 30).

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Latest from Washington—John D. Davis, Washington manager for Bonneville Power Administration, takes over as deputy Depa administrator; Ken G. Whitaker quits because of ill health . . . Rumor is Mon Wallgren will leave FPC about mid-month . . . Alabama senators push for funds for three hydro projects in their state . . . House committee okays $16-million Collbran reclamation project (7,400 kw) near Grand Junction, Colo . . . James F. Garrard, M. W. Kellogg Co, will be a consultant on heat exchangers for NPA's Engine and Turbine Division . . . On preliminary figures for first quarter '52 material allotments, NPA's Electric Equipment Division fares worse than in fourth quarter '51, Engine and Turbine Division better.

Pacific G&E plans an $80-million steam plant (four 150,000-kw units) on San Joaquin River . . . Westinghouse Electric's new $296-million expansion program will extend beyond 1953. Authorized debt will be raised from $150 million to $500 million . . . A $15.2-million project to produce 22,500 tons a year will be started by Copper Cities Mining near Miami, Ariz.

Sales promotion campaign with TV spot announcements will be started soon by Union Electric of Missouri . . . Detroit Edison issues booklet on "ABC's of the Public Power Problem." For copy write President James W. Parker, 2000 Second Ave, Detroit 26, Mich.

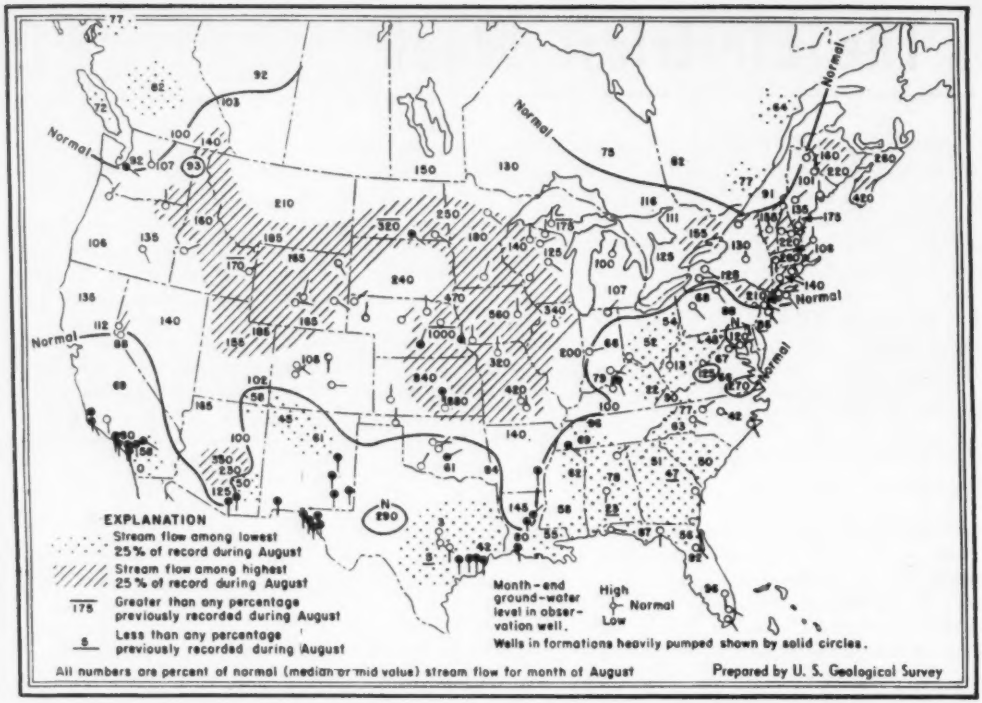
First known civilian installation of Westinghouse Bidirectional High Intensity Runway Light (Type US) will relight Kansas City (Mo.) municipal airport runways this month . . . "It's safe to assert that purchases (appliance) are beginning to outpace production," Hotpoint's Pres James J. Nance reports . . . GE has cut fluorescent lamp prices an average 5%.

Montana Power begins employee stock sales plan by purchasing its common on open market and reselling it to employees on installment plan. Company will absorb all commission and transfer costs . . . Wisconsin Michigan Power plans to sell $3-million first mortgage bonds 1981 competitively . . . West Texas Utilities will sell $8 million first mortgage bonds 1981 competitively this month . . . Central Maine Power plans to sell $10 million in securities, equally divided between bonds and common . . . Virginia E&P plans to sell $20 million first and refunding mortgage bonds competitively about Dec. 10.

Latest from West Coast—Negotiations for merger of Arizona Edison and Central Arizona L&P have been resumed at point where they collapsed in 1947 . . . IBEW Pres Dan Tracy told San Francisco Electric Club that public power planners in Washington are becoming alarmed at labor's efforts on behalf of free enterprise system. He promised labor would continue to fight for free collective bargaining and free enterprise despite peace feelers from public power proponents . . . Arizona utilities are discussing a jointly owned steam plant in southern part of the state . . . Fuel oil reserves on West Coast have dropped to 17 million bbl. They were 85 million bbl during mid-1950 glut and 14 million bbl during world War II low.

North Carolina PUC sets hearing for Nov. 13 for Tide Water Power to show why rates should not be cut . . . Iowa PS ups rates about 4% and Northwestern PS (S. D.) 5% generally . . . N. Carolina attorney general rules municipalities exempt from PUC control.

Congratulations—Commonwealth Edison names Gordon Corey comptroller, succeeding Otto Gressens who is now financial vice-president of Peabody Coal Co . . . Pacific P&L elects E. Robert de Luccia a vice president and H. W. Millay, secretary . . . Bronze "Oscar of Industry" awards in "Financial World's" 1950 annual report contest have been won by Shawinigan W&P, Long Island Lighting, Illinois Power, Virginia E&P, Gulf State Utilities, Citizens Utilities, and General Electric.


Normal
EXPLANATION
Stream flow among lowest 25% of record during August
Stream flow among highest 25% of record during August
Greater than any percentage previously recorded during August
Less than any percentage previously recorded during August
Month-end ground-water level in observation well.
High
Normal
Low
Wells in formations heavily pumped shown by solid circles.
All numbers are percent of normal (median or mid value) stream flow for month of August
Prepared by U. S. Geological Survey

MAP prepared by the U. S. Geological Survey shows stream flow and ground water in relation to normal in August 1951. Since map was prepared drought in Southeast has spread over larger area and in most regions has become more severe

Drought Hits Southeastern Systems

Production by Hydro Plants Seriously Affected; Companies Running All Steam Stations and Buying Power; December Peak Load a Danger

Drought, curse of farmers and hydroelectric systems, has reached the Southeast. In an area where every kilowatt hour is needed, the rivers are low. In many sections rainfall this summer has been the lowest in 25 years. So far the utilities have had no great trouble supplying a load that has been running over 10% above last year. But the worst is yet to come unless conditions change rapidly.

Adverse hydro conditions in December can mean a deficiency in capability. Last April Edison Electric Institute's ninth semiannual power survey predicted a deficiency of 1.1% in reserve under median hydro conditions. It was felt that the utilities by deferring maintenance, importing some power, and with a little luck could get by. But under adverse conditions the deficiency will be 5.7%. If this is true, there will be no way to get by. Somebody is going to be deprived of power. Just who, the Defense Electric Power Administration may decide within the next few weeks.

Furthermore, there may be some delay in getting new plants on the line because of materials shortages. These delays would only make the shortages greater.

Only interconnections and efficient operating practices have kept the utilities out of trouble for the past month. Even the smallest steam plants are on the line to save every drop of water. Every kilowatt hour that can be purchased is being bought. This is helping companies which are interconnected with others in adjoining regions.

A check with regional companies supplied this information:

Virginia Electric & Power Co—Sixteen small hydro plants on James, Rappahannock, and Appomattox Rivers have a normal generating capacity of 16,000 kw. Present water conditions have reduced this by 50%.

Carolina Power & Light Co—Present water storage of 90% is actually above the 70% normal for this time of the year. But this water is being saved for later use. All the steam plants are being used, and power is being bought from Vepco and Appalachian Electric Power Co.

Carolina P&L has been supplying the Carolina Aluminum Co, Badin, N. C., with every kilowatt hour of off-peak, steam-generated power it can,

plus some on-peak energy. Some nights this load is 60,000 kw. This power enables the aluminum company to maintain as much of its water head as possible for aluminum production. Only by maintaining a high head can it obtain top production when it must turn to hydro.

Duke Power Co—This company is in "fair" shape because it has been using steam plants and conserving water supplies. Streams are almost to the record low of 1925. Rainfall is 12 in. below normal so far this year and was 12 in. short last year—making an accumulated shortage of 24 in.

South Carolina Electric & Gas Co—Company is pinning its hopes of avoiding trouble during December peak on 40,000-kw Plant Hagood. This steam plant is behind schedule but is expected to go on line Nov. 1. All steam plants are being operated, and Georgia Power is supplying energy week-ends. Water is low in Saluda River and Lake Murray. There has been a 20-month drought.

South Carolina Public Service Authority—Stream flow extra low and so far company has been unable to get any power elsewhere.

Alabama Power Co—Water storage is normal for this time of the year because the company has been running all "secondary" machines and buying as much power as possible from industrial customers. Rainfall in the area is approaching the 25-year record low. In the Coosa River regions rainfall is 80-85% below normal and in the Tallapoosa area, 65-70% below.

Georgia Power Co—Storage is somewhat below normal. Rainfall is approaching the 1925 low, although there has been a little rain recently. Company is buying all the energy it can from large industrial power plants.

Tennessee Valley Authority—Reservoirs are at median levels in relation to experience for the past seven years. Present levels are considered good for this time of the year. All steam plants are being used. Some power is being delivered to the Southern Co. TVA is buying power—100,000 to 250,000 kw during peak hours and 500,000 kw or more during off-peak hours. Much of this energy is going to the Oak Ridge project of the Atomic Energy Commission.

Spawning Delayed

Dam builders, never loved by fisheries interests, got another black eye recently on the Rock Island Dam across the Columbia River near Wenatchee, Wash.

Water level of the river has been lowered by control at upstream Grand Coulee Dam to permit work on raising the dam to obtain additional power. As a result, ladders to carry the fish upriver for spawning are dry and the fish can't get past the dam.

Contractors had promised to install a pump to keep the water flowing over the ladder but, at last reports, the pump had not yet arrived.

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New Johnsonville Plant Ready for Service Soon

TVA's new steam-electric generating plant at New Johnsonville, Tenn., is expected to be ready for operations about Oct. 10, according to William H. Moody, assistant construction engineer.

Moody, speaking at the Engineers Club in Memphis, said "The plant is already obsolete in some respects because of new discoveries and developments that are continually going on."

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Water Ban Lifted

Following heavy rains in central Arizona, the Salt River Valley Water Users Association lifted a ban on use of more than 1½ acre-ft of the 2-ft yearly allotment before Oct. 1.

Many U. S. Areas Report Power Is in Short Supply

Low water levels in the Southeast and aluminum's drain on power in the Northwest immediately spring to mind when anyone mentions "power shortage."

But much of the rest of the nation faces similar trouble. Tight electric power supply in these critical areas is already biting into vital defense production.

Trouble Spots Listed

Thomas E. Marburger, director of Defense Electric Power Administration's Materials and Equipment Division, recently named some of the trouble spots:

Pittsburgh: Electrical furnaces used to produce needed alloy steel are being interrupted almost daily because of insufficient generating capacity. They need an additional 60,000-kw capacity to maintain production.

The Carolinas: Adverse water conditions have already caused curtailment of ferro alloys and aluminum.

Gulf Coast, Central and Northwest Texas: Load growth in the area has diminished operating reserves to a point where dependable capacity will not be available in 1952.

Cleveland Area: Deficiencies in capacity as high as 80,000 kw are forecast in the fall of 1952.

Industrial North Central Region (including Michigan, Indiana, Ohio, Western Pennsylvania, West Virginia, and Kentucky): A deficit of one million kw before 1953 is forecast.

1952 Outlook Bad

"At no time during World War II," Marburger said, "did the electric power supply look so threatening as it now appears for the fall and winter of 1952.

"If the electric power industry could obtain sufficient materials to carry out its planned program of providing 27.5 million kw (of additional capacity) in the period 1951 to 1953 the shortages could be rectified by the end of 1953."

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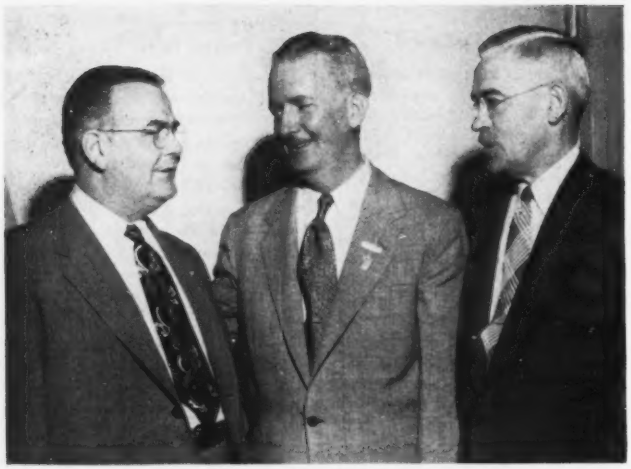


NEWLY ELECTED OFFICERS of Pennsylvania Electric Association for coming year are (l to r) R. G. Rincliffe, Philadelphia Electric, vice president; R. A. Gallagher, Pennsylvania Electric, president; and John M. Orr, Duquesne Light, vice president

Defense Aspects and Public Power Cast Pall over PEA Annual Meeting

A pall hung over the annual meeting of Pennsylvania Electric Association in Philadelphia last week that was lifted only slightly by its speakers. The reasons, as they outlined them: Scarcities of copper and steel, prospects of more inflation and higher taxes, the dark international situation, and continued efforts of the administration to advance public power over the interests of the private companies.

In his address of welcome, H. B. Bryans, president of Philadelphia Electric Co, said cutbacks in the supply of materials to utility companies seem certain. Material shortages have already cut the industry's 1951 capacity additions by a million kilowatts and now seem likely to cause a loss of two to four million kilowatts in 1952. This is of grave concern to utility managements, he said.

"Our military program, which has been superimposed on a substantial civilian economy," he said, "cannot succeed without electricity. The industry is confident it can supply all future demands if we are allocated the necessary tools and equipment to do the job."

George M. Gadsby, president of Edison Electric Institute and Utah Power Light Co, warned that proportional cutbacks in the utility industry's defense expansion program could cripple the nation's defense production machine. "Our war machine can't work on 90% of its power requirements; it must have 100% of the power it needs or it will be crippled proportionately," he said.

Commenting on the rapid growth of federally financed power projects, Gadsby said the action of Congress on these projects reflects public opinion back home. For this reason, he said, the formation of favorable public opinion is where the industry's job begins. "Our defense lies in our home towns," he commented. "Each individual company in its own bailiwick is the front line. We have no reason to be proud of the job of public relations we have done."

Like Gadsby, Mrs. Denny Griswold, editor of "Public Relations News," found little to boast about in the public relations efforts of the utility industry. "I know of no industry that suffers more than utilities from a lack of management understanding of public relations," she said.

Mrs. Griswold charged the industry uses public relations only when it has either had an accident, changed its rates, "wants to scream about high taxes," or has some other selfish interest to bring before the public. She warned that the end and aim of public relations should not be to advance selfish aims but to win the friendship and respect of the public.

Dr J. A. Hutcheson, vice president of Westinghouse Electric Corp, predicted that twice as much electric generating equipment as has been made up to 1950 will be required to meet the nation's power needs in 1965. However, he predicted that business-managed electric utilities would be prepared to meet every foreseeable demand for current in the years ahead.

Editor Discusses Freedom

Wheeler McMillen, editor of the "Farm Journal," discussing the philosophy of human freedom, said it never had a real chance until it was implemented here in America. He said anti-freedom forces were always at work and named Soviet Russia as the prime mover in this field.

Starting from the premise that "a company is known by the bosses it keeps," W. V. Merrihue, General Electric Co, told the Pennsylvania utility men that better leadership, today, is the key to employee, company, community, and national relationships. Too often we think that good employee relations can be bought with wages. However, Merrihue pointed out, all that an employee wants is a direct function of the personal relationship that exists between a man and his superiors.

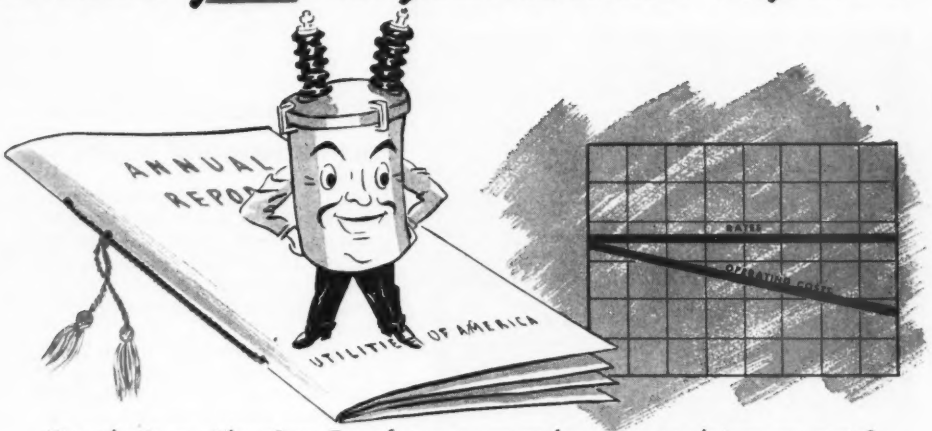
Sees Threat to Expansion

George R. Conover, retiring PEA president, said the industry has gaged power needs of the country since the war with "uncanny accuracy." In doing so it has spent billions of dollars to double its capacity. Continuation of this multi-billion dollar expansion is threatened today, he said, by government restrictions. However, electricity is the prime source of power behind the nation's defense effort. Some government spokesmen foster the illusion of a power shortage when in fact they would be directly responsible for such a condition if it exists in the years ahead, Conover concluded.

The association's merit award was presented to E. W. Oesterreich of the Duquesne Light Co for development of the Oesterreich method of pole top resuscitation.

MOLONEY *HiperCore* TRANSFORMERS

will look good on your Annual Report!



Yes, that's so. HiperCore Transformers can reduce your maintenance costs!

For instance

1. Peak overloads which produce high winding temperatures and greatly shorten the life of ordinary transformers are readily handled by HiperCore Transformers without damage. This is a direct result of the wound core design which permits a smaller core and coil mass, and therefore a lower temperature gradient.

2. Short circuits which cause shifting and distortion of transformer windings seriously damage winding insulation. HiperCore coils are securely braced and made mechanically rigid with heat-curing bonding materials to withstand short circuit conditions which would send most transformers to the repair shop.

3. Poor voltage regulation during short-time overload periods results from high transformer impedance. Low impedance has been achieved on HiperCore Transformers by means of the small core size and the resulting shorter coil winding. This means that HiperCore Transformers can often deliver the load with satisfactory voltage regulation where an ordinary transformer of the same Kva size might give such poor regulation as to require its removal and a larger size installed.

MEB1-18

You can have

Conventional Type LL HiperCore Transformers equipped with side-wall-mounted high and low voltage bushings in all standard voltages below 5,000 volts.

Conventional Type CL-1 HiperCore Transformers equipped with one cover mounted high voltage bushing for use on grounded neutral systems.

Conventional Type CL-2 HiperCore Transformers with two cover mounted bushings in standard sizes for use on either Delta or Wye systems, in single or three-phase banks.

Or HiperCore CSP Transformers in identical ratings but fully equipped with self-protecting equipment with no additional protective equipment needed.

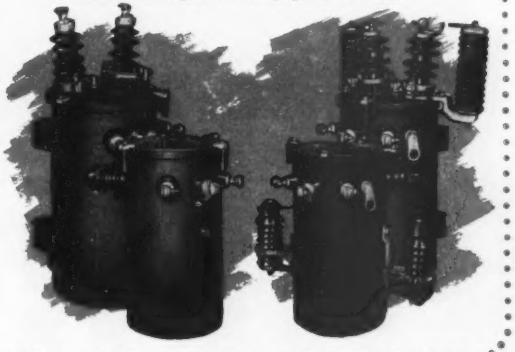


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Photo courtesy of Barber-Greene Company

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Roebling Parkway Cable is made in single and multiple conductor — solid or stranded — in a range from 600 to 5,000 volts. Furnished with metallic armor or non-metallic ROEPRENE sheath, depending upon the amount of physical protection required.

C. A. A. Approved for Airport Lighting

Roebling Type A cable for 600 volts, and Type B for 3,000 and 5,000 volts, pass all C.A.A. requirements for Specification No. L-824. Both types are made in single and multiple conductor construction. Type A has RP insulation; the insulation of Type B is ozone-resistant oil-base rubber.

Large quantities of Roebling's full line of electrical wires and cables are called for in the national rearmament program. The Roebling organization and distributors will always, however, give you the best service and deliveries within their power. John A. Roebling's Sons Company, Trenton 2, New Jersey.

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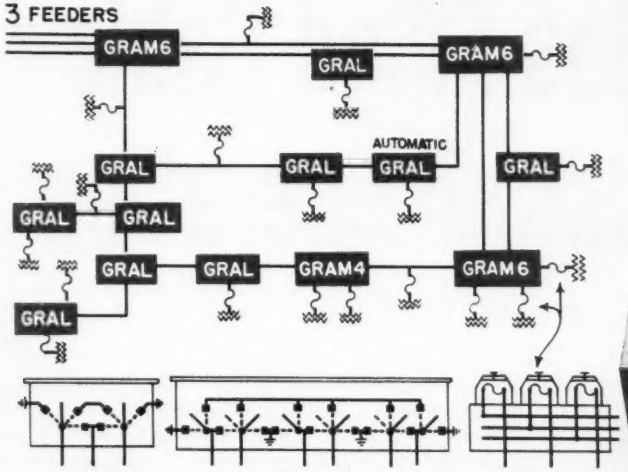
Here's How a State Institution Uses G & W Equipment For a COMPLETE PRIMARY DISTRIBUTION SYSTEM



"GRAL" Load Break Oil Switch

Load fed from either side—or feeder looped through with or without load connected with ground position for each feeder.

"GRAM" Load Break Oil Switch

Three feeders looped through or interconnected in any arrangement. 6 way with continuous bus and ground position for each set of links.

"FCBX" Fuse-Switch Box

Fuse protection for individual loads with convenient load break oil switching—used separately or attached to "GRAL" switches.

G & W load break oil switches, automatic transfer mechanisms, fuse-switch boxes, and splice boxes have been specified throughout this complete primary distribution system at a large state institution. Equipment cost was held to a minimum with no sacrifice in efficiency by the use of G & W sectionalizing equipment.

Transformers in 20 load areas are supplied by a network operating at 4160 volts delta. Type "RA" load break oil switches permit isolation of any area and rapid interconnection of loop feeders in case of failure at any point in the system. Any one of the 20 load areas can be isolated without interrupting service to the other sections of the system—and all areas can be supplied while only one of the incoming feeders remains energized. An automatic transfer mechanism is used at the main building vault to assure rapid connection to an alternate feeder if the normal source fails.

Individual loads are supplied through Type "FCBX" fuse-switch boxes which provide a convenient means of disconnection under load in addition to short circuit protection.

Let G & W engineers or engineering representatives show you how G & W equipment will help solve your distribution problems.

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Trouble-Free Cable Terminations

Capnut Style Disconnecting Straight Through

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Type "ST-SODERTITE"

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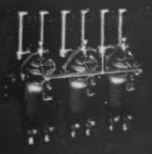

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Air or Oil Filled

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Many Sizes, Styles, Ratings

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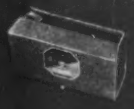

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Today over 1,000,000 feet of G-E Gas Filled Cable in successful operation

Reports from users of G-E gas-filled cable show more than one million feet of G-E gas-filled cable giving satisfactory service—one installation totals over 40,000 feet. Since the first installation 13 years ago, there has never been a failure due to inherent causes.

Increased Control of Performance Characteristics

A chief reason for the success of G-E gas-filled cables is gas-pressure control. It permits greater uniformity and control of dielectric characteristics. This control eliminates weak spots that might be caused by faulty impregnation or migration. Migration is no problem with G-E gas-filled cable which can be installed on any profile.

The use of gas-pressure and mobile impregnating compound in G-E gas-filled cable promotes automatic grading and self-healing. These actions are the radial rearrangement of compound in the cable to inner zones where it is most needed and the filling-up of voids as they occur in these critical locations.

Ionization Discharge Extinguished

These automatic grading and self-healing features of G-E gas-filled cable are big factors in extinguishing ionization discharge before it can grow and cause trouble.

The ionization self-extinguishing characteristics coupled with reduction of mechanical stresses on the sheath mean that G-E gas-filled cables can take emergency overloads and give long, reliable service.

Laboratory Proof of Field Samples

The proof stands through years of experience and tests. Tests on laboratory samples and on cables in actual service show no measurable reduction in factor of safety. Even after years of normal use, lengths of cable removed from service proved to be in perfect physical and operating condition.

Get the advantages of self-supervision and dependability for your high-voltage transmission and distribution circuits. Specify G-E gas-filled cable.

FURTHER INFORMATION AVAILABLE

For an explanation of the self-supervising principle and descriptions of the use of the three types of G-E gas-filled cable, write for a free copy of the booklet *G-E Gas-Filled Cable.* Section W71-1027, Construction Materials Division, General Electric Company, Bridgeport 2, Connecticut.

GENERAL ELECTRIC

Final Action Not Expected Until '52 on 3 Niagara Redevelopment Bills

Final Congressional action is not expected before next year on the development of additional hydroelectric power on the Niagara River in the vicinity of the falls.

Public works committees of both House and Senate have completed hearings on three alternate bills that would provide for an additional 1,132,000-kw on the American side.

Prompt Action Unlikely

Next, the committees must decide whether to recommend private, state, or federal development of Niagara's potential, as outlined under the three plans. The proposals are essentially the same as to engineering details. The House committee may make a decision before Congress adjourns, but the Senate group does not appear to be in a hurry. Since both Houses have tacitly agreed to defer any new controversial bills until next session, it is almost certain floor action on the proposals will be put off until then.

In the House hearings, five privately owned New York utilities renewed their offer to construct the $308-to-$350 million project at no cost to taxpayers and with full tax liability as assessed on similar plants in the state.

As he did before the Senate committee, Earle J. Machold, president of Niagara Mohawk Power Corp, represented his and the other four companies: New York State Electric & Gas Corp, Consolidated Edison Co, Rochester Gas & Electric Corp, and Central Hudson Gas & Electric Corp.

Savings to Public Cited

"Governmental development would yield no revenue for the support of federal, state, or local governments," Machold declared. "Redevelopment by private enterprise would avoid appropriations of hundreds of millions of public funds and would yield federal, state, and local taxes estimated to be at least $23 million annually.

"The proposed Niagara development does not involve any function of government with respect to navigation, flood control, reclamation, irrigation, or sanitation—it would place the government purely and simply in the power business."

EARLE J. MACHOLD, president of Niagara Mohawk Power Corp, who presented private power plan for Niagara redevelopment before House committee

Machold's testimony received strong backing from two union officials. Robert W. MacGregor, representing the New York State Association of Electrical Workers drawn from AFL locals, and Andrew J. McMahon, president of Local 1-2, Utility Workers Union of America, CIO, both testified the trade union movement had fared badly under publicly owned utilities.

"Now we have had our experience with public power developments and we found it bitter," MacGregor said.

John E. Burton, chairman of the Power Authority of the State of New York, urged approval of the bill which would give the authority a hand in construction of the project and let it market the power. The federal development bill, he said, is an "open invitation" for the federal government "to sabotage" the bill's expressed intent of later turning the project over to the State of New York.

In a letter submitted by the Budget Bureau, President Truman backed federal development.

An Interior Department spokesman called for federal development of the project as the only way to safeguard the public interest. He noted that under the terms of the federal development bill, Interior would market the power until an agreement could be reached to turn the project over to the New York State Authority.

Westinghouse Prizes Are Added to EEI Award List

A new series of George Westinghouse Awards for electric laundry equipment promotion has been added to the 1951 Prize Awards Contests administrated by Edison Electric Institute.

The new awards are offered by Westinghouse Electric Corp to electric operating companies and individuals to recognize and stimulate outstanding performances in promotion in the laundry field.

This year Hotpoint, Inc, has divided its George A. Hughes awards for major electric appliance promotion into two classifications: One for companies with less than 150,000 customers; the other for those with more than 150,000. Both the Laura McCall awards for home service work and the Reddy Kilowatt Annual Report Award have been liberalized to attract more entries from small and medium-sized companies.

In general, entries to these and other EEI-sponsored contests must be submitted early in 1952. Brochures descriptive of the awards and their terms are offered by Edison Electric Institute, 420 Lexington Avenue, New York 17, N. Y.

Navy Engineering Station Switches to Utility Power

The Navy's Engineering Experiment Station, a research facility on the Severn River at Annapolis, Md., is going out of the power generation business and will buy its electricity from Consolidated Gas Electric Light & Power Co of Baltimore. The changeover is expected early next year. In the past the station has generated its own electric power.

The station's commanding officer said the changeover to outside power would mean constant voltage and frequency. It will also give the station facilities to handle peak loads without the necessity of interrupting some of the test work to provide power for other test work.

Named to Ohio PUC

Paul D. Deaton has been named executive secretary of the Ohio Public Utilities Commission. Previously he was with International News Service.

Allocators Bucking Wilson's Attempt to Restore Power for NW Aluminum

Mobilization Director Charles E. Wilson had stern words this week for the power-hungry Northwest: Stop treating aluminum like a step-child.

But it was apparent that Wilson would have to do more than scold. Three pot-lines have been shut down. Wilson's threat to have the industry move out of the Northwest had fallen flat. And power allocators stoutly defended their decisions which put the first and heaviest cuts on aluminum.

Aluminum Loss May Be 15%

Bonneville Power Administration issued the order which cut about 200,000 kw out of aluminum production. If the power shortage gets worse, cutback rules as now set up by the Defense Electric Power Administration might result in the loss of 125,000 tons in the next six months. That's 15% of the aluminum mobilizers counted on for the year.

To Wilson, this was an impossible prospect. Vital defense programs like aircraft couldn't stand such a reduction in aluminum supply.

So Wilson—on three days' notice—called on the Northwest's active and potential aluminum producers to send in their plans for averting cutbacks—even if that involved moving out of the area.

No one—least of all the aluminum producers—expected to move any plants. Wilson would go that far only if he became convinced that the Northwest's power shortage would continue as a threat to mobilization.

Disagreement on Allocation

What he really wanted probably was a second-look at the way power cuts had been put into effect. He hoped the Northwest would agree that aluminum should have a full allocation. Politicians from the area and power allocators in the mobilization set-up killed that hope. Here's why they think aluminum should take the heaviest reductions:

The industry came into the area ten years ago because there was plenty of cheap power going begging. But with the big industrial expansion, other users now clamor for power. When allocators sat down to cut power use, they found 600,000 kw were going to aluminum, and all other industrial users were getting 400,000.

This looked like a serious lack of balance to them. So Depa Order EO-4, written on instructions from Defense Production Administration, ruled that switches should be pulled first on aluminum. The resulting cutback covers power bought by the aluminum companies on an interruptible basis.

Wilson can change the allocation if he wants to. Both Depa and DPA work for him. But the only sure result so far from his blast is to put a question mark over 180,000 tons of additional aluminum capacity already planned for the Northwest.

A government loan for the Harvey Machine Co project at Kalispell, Mont., has already been blocked by Interior with the power shortage as the excuse. Alcoa's 85,000-ton project at Wenatchee was scheduled to go into construction in January. Kaiser and Reynolds each have 20,000-ton expansion projects in the area which may have been shelved. It isn't likely that Wilson will allow these projects to go ahead unless the Northwest can make firm commitments of power.

A blow of this size to the aluminum expansion program would mean a frantic hunt for other sources of power. Proposals such as that of Spartan Aircraft, to produce 60,000 tons of aluminum a year from Arkansas Bauxite, would probably be taken off the shelf.

There is a basic power shortage in the area. The Federal Power Commission in May forecast that peak demand will exceed capacity by 220,000 kw in the Northwest in December of this year. By December of 1952, the situation will be even worse—FPC estimates a 314,000 kw deficit.

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Wilson's Order Criticized by Most Power Officials

Mobilization Director Charles E. Wilson's order directing Northwest aluminum plants to prepare plans for moving elsewhere because of the power shortage drew more amazement than consternation from power officials.

Wilson's action was taken without consulting either Defense Electric Power Administration, which is charged with providing the power, or the Department of Interior, which approves location of aluminum plants. Said Depa Administrator James F.

The Facts in the Northwest Power-Aluminum Squabble

Aluminum companies involved—Aluminum Co of America has a 76,000-ton plant at Vancouver and plans an 85,000-ton plant near Wenatchee, Wash. Kaiser Aluminum Co has a 145,000-ton plant near Spokane and a 25,000-ton plant at Tacoma. It plans a 20,000-ton plant in the area. Reynolds Metals Co has a 31,500-ton plant at Longview, Wash., and a 75,000-ton plant at Troutdale, Ore. It also is planning a 20,000-ton plant in the area. Harvey Machine Co wanted to build a 72,000-ton plant at Kalispell, Mont., but the Interior Department blocked a government loan to finance it.

Aluminum production—U. S. began mobilization with 750,000 tons of capacity a year. It is now about 834,000 tons. But mobilizers counted on having 1.4 million tons of capacity by July 1953.

Result of power curtailment—As a result of BPA's order depriving industry of some 200,000 kw of interruptible power (selling for 2 mills per kwhr), companies have been forced to put high-cost steam plants into operation. These provided 95,000 kw. But Alcoa has a potline closed at Vancouver; Kaiser two at Spokane. This will cut production 5,000 tons a month.

Solution for power shortage—Rain would help. Steam plants will aid a little but the cost would be high. Most of the plants are old and uneconomical. Most efficient have a 6-mill per kwhr fuel cost. Power sells from 8 mills to 2¢ a kwhr. Five private companies say their steam power, generated and bought, during the next half year will cost $21 million as against an average annual cost of $2.5 million. A Spokane newspaper has suggested that the government send aircraft carriers or battleships to Northwest ports to aid power suppliers.

Fairman, "We would like to know where they plan to move the potlines. There is no available power supply anywhere in the United States."

C. A. Erdahl, public utilities commissioner at Tacoma, and chairman of the Northwest Power Conference, refused to believe Wilson could have been quoted correctly as saying he "is tired of the seeming inability of private and public power interests to overcome the electric deficit."

Holds Government Responsible

He said the responsibility for the deficit lies squarely on the shoulders of the federal government. "Congress failed to appropriate funds to build federal power plants," he charged, "and the federal agencies caused delays all along the line in the building of nonfederal plants to meet a need we have recognized for the past five years."

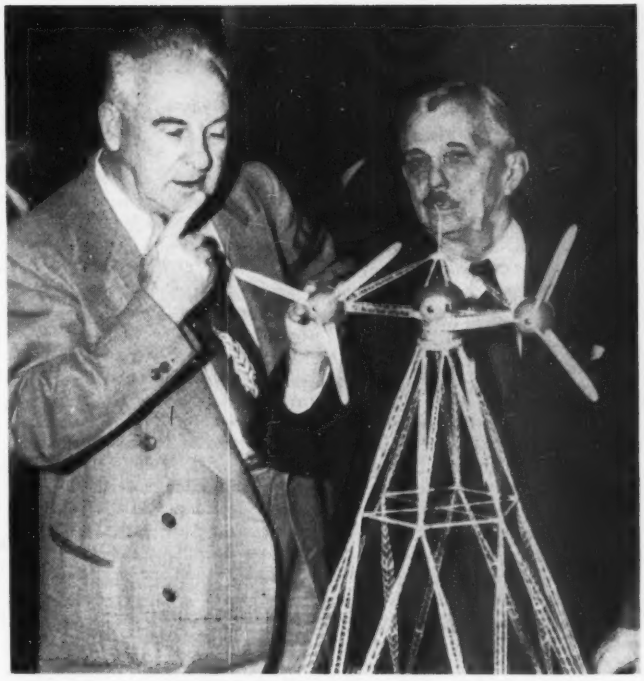
Johann H. Gumz, newly appointed Northwest administrator for Depa, said the power shortage simply was caused by a lack of rain. He lauded the private power companies as having been "amazingly cooperative." They began operating their auxiliary steam plants for the Northwest Power Pool on a 24-hour basis on a telephonic request, he pointed out, without any assurance on how they would be paid for this service.

Gumz said new dams would provide additional power by late 1953, eliminating the danger of future shortages "if we don't bring in too many new industries."

Calls Action Unjustified

Rep Henry M. Jackson, Democrat of Washington, termed Wilson's action to be "absolutely" without justification, and declared it would be "infinitely cheaper to spend $60 million for a steam plant for generating purposes than to move the aluminum plants."

Democrat Sen Warren G. Magnuson of Washington described the mobilization director's order as "inconsistent with Depa's own testimony," which influenced Congress to authorize new dams and speed construction of McNary and Chief Joseph Dams. Sen Harry P. Cain, a Washington Republican, declared, "The federal government must give much more encouragement to nonfederal dam construction than it has in the past."



WINDMILL GENERATOR that Interior wants to build is shown Rep John R. Murdock, Arizona Democrat (left) by Percy H. Thomas, its designer. Murdock sponsored a bill to finance the 7,500-kw machine, which would be taller than Washington Monument

Work Begun by Con Ed on N. Y. Harbor Crossing

Consolidated Edison Co of New York, Inc, reports preliminary work has started on the installation of electric cables across the Narrows of New York harbor.

This tie will be between Hudson Ave Station of the Con Ed system and the Staten Island Edison Corp system. Two oil-filled, pipe-type, 138-kv, three 1.5 Mcm conductor cables (27 kv initial operation) will be laid in the vicinity of Ft Hamilton, Brooklyn, and Ft Wadsworth, Staten Island. The two 6800-ft lengths of cable will be put in the same trench with a 24-in. diam pipe for natural gas.

Bottom of the trench will be 25 ft below the harbor bottom or 95 ft below mean low water. Trench dredging will be supervised by the Transcontinental Gas Pipe Line Corp and the complete installation is expected to be in operation in approximately a year.

Canadian Output in July Up 10% Over Year Ago

Canadian central stations produced 4,629,009,000 kwhr during July, an increase of about 10% over the 4,200,615,000 kwhr produced during the same month last year. Primary consumption of 4,204,847,000 kwhr during July marked the 29th successive month that usage has been greater than that of the corresponding month of the preceding year.

The following statistics, supplied by the Dominion Bureau of Statistics, are in thousands of kilowatt hours:

Period	1951	1950
Seven Months' Output	33,432,777	29,055,091
Primary	30,759,590	26,787,242
Secondary	2,673,187	2,267,849
Primary Consumption	29,826,750	25,898,043
Net Exports to U. S.	1,459,083	1,171,324
July Output	4,629,009	4,200,615
Primary	4,345,312	3,845,527
Secondary	283,697	355,088
Primary Consumption	4,204,847	3,714,553
Net Exports to U. S.	237,706	158,786
June Output	4,707,449	4,312,667
Primary	4,376,407	3,831,540
Secondary	331,042	481,127
Primary Consumption	4,241,971	3,706,014
Net Exports to U. S.	224,497	167,530

Depa Sets Up Uniform Procedure for Delivery of Controlled Materials

A uniform procedure has been established by Defense Electric Power Administration for aiding utilities to obtain delivery of controlled materials.

Assistance to utilities in this manner, Depa said, does not lessen the responsibility of the utility to use every means of its own to secure prompt delivery. Depa assistance should be considered a supplement to the utilities own efforts.

Depa Aid Only as Last Resort

The agency asks that requests for assistance be made only if the material has been allotted by Depa, and the utility, its contractor, and fabricator have exhausted every reasonable effort to obtain the materials without Depa's assistance.

Requests for assistance should be addressed to Depa's Construction Expediting Branch. Information should be submitted in the following order:

1. Brief description of the major plant addition or minor requirements project for which controlled materials are required.

2. Depa serial number, if a major plant addition.

3. Two copies of fabricator's material list to mills indicating sizes, shapes, quantities, quarter of allotment, total weight, and dollar value of controlled material involved.

Must List Use

4. Use to be made of controlled materials.

5. Utility's purchase order number and date of order.

6. Fabricator's name and address, if a fabricator is involved. Also his order number on mill and date of order.

7. Name and address of each mill to which order was sent, mill order number, and rolling schedule requested on each mill order.

8. Date that controlled materials or class "A" products involved in a request must be on hand for erection at project site.

9. If a fabricator is involved, his period of fabrication.

10. Reasonable and realistic date when controlled materials must be shipped from mills to meet situations described in items eight and nine.

11. If project involves additional generating capacity or transmission of such capacity, list important new customers which make the requirement necessary. Also give customers location, product manufactured, relation to defense or essential requirements, and new load in kw and actual dates that capacity is needed.

12. Also describe probable effects on customers if material is not delivered. Give customers' names, products, essentiality of products, amount and duration of curtailment and estimated production losses.

13. Any additional data which might be of use to Depa in giving assistance. System operating condition reports might be helpful.

Documentation, including mill turndowns in form of letter or telegram, is also requested by Depa.

Where requests for assistance have already been submitted, Depa asks for supplemental information where needed to come in line with the new procedure.

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Zinc Will Be Scarcer

Zinc is going to be scarcer. The mine and smelter strike cost 17,000 tons of zinc in September. Its effects will knock another 12,000 tons off October production. The National Production Authority informed makers of galvanized sheets that after filing requirements of the military and the Atomic Energy Commission all other users must take cuts. Just how seriously these cuts will affect the electrical industry is not known.

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Industry M Orders

Copies of this amendment may be secured from the National Production Authority, Washington 25, D. C., or any regional office of the Department of Commerce:

Amendment to M-8 extends to succeeding calendar quarters the current limitations on the use of pig tin which are set at 90% of average quarterly use during the base period.

Mobilizers Must Rule on Future of Industry

A showdown is coming on the future of the electric power industry's expansion program. Top defense mobilizers in Washington must soon decide whether (1) to provide the materials for the industry's three-year, 27-million-kw expansion program, or (2) to cut it back to a point where materials will be available.

The tipoff could come today (Oct. 1) in Defense Mobilizer Charles E. Wilson's quarterly report to the President and Congress. But, more likely, it will be put off for some weeks. In the meantime the behind-the-scenes fight will continue.

The Defense Production Administration is trying desperately to pare demands for critical materials. DPA Administrator Manly Fleischmann would like to cutback the industry's program. He is testing the idea at meetings of small groups. At a recent Washington meeting he wondered out loud why the power industry should expand at twice the rate of industry in general. At Detroit he said that the three-year program may have to be extended over four years.

The industry's claimant agencies, whose officials feel that policy makers have been getting too much advice from those who know nothing about the industry, are fighting to keep the expansion program on schedule. They assert that the industry is expanding because more electricity is needed. They point out that while gross national production has risen less than 50% since 1946, the consumption of electricity has gone up over 200%.

But on this both factions agree. Vital defense and atomic energy demands must be met first. Any plants needed to meet them will be built.

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Advisory Committee Named

Makeup of the three-man committee which will act in an advisory capacity to J. H. Gumz, the Pacific Northwest area representative for Depa, has been announced. It will consist of James H. Polhemus, president, Portland General Electric Co; Owen Hurd, manager, Benton County Public Utility District, Prosser, Wash.; and D. Loring Marlett, assistant administrator of Bonneville Power Administration.

Accuracy...

ONE IMPORTANT REASON WHY
KYLE RECLOSERS OUTSELL ALL OTHERS

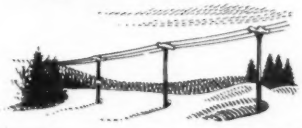
Accurate because they're built that way. Because we make so many reclosers, we have excellent machining facilities, extremely high quality standards and close tolerances, and extensive engineering and field experience. Each recloser is individually tested. The result is a very uniform product that assures accurate coordination.

Precise Hydraulic Mechanism: Does not depend on gravity; no clock-work, coil springs, or mechanical moving parts. A very consistent and accurate timing sequence is maintained. Kyle Reclosers are now supplied with ORTO®, L-M's oxidation-resistant transformer oil, inhibited for longer oil life.

Greater Convenience: You can change coils and timing sequence right in the field—in a few minutes. No shop trips to change ratings or sequences—it's easier to maintain coordination!

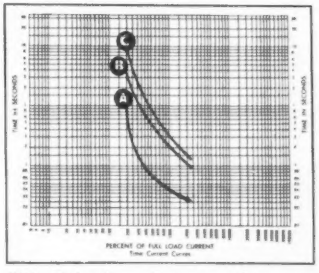
Here's the Kyle type H single-phase recloser. Has all the Kyle safety features. For 2.4 to 15 kv; six ratings from 5 to 50 amps; trip currents 10 to 100 amps; interrupting capacities from 150 to 1200 amps.

Also available in Kyle type 3H three-phase recloser, which recloses and resets individually on each phase to clear temporary faults; but if fault does not clear after three operations, it locks out *all three phases simultaneously* on the fourth tripout.



Satisfactory at wide range of temperatures. The design of the recloser makes it dependable at all temperatures—from 120° above to 20° below, says one user. Another large user, in Canada, says Kyles give complete satisfaction down to 58° below zero.

Installing a Kyle type H on a rural line in the West. Thousands and thousands of Kyle reclosers are in use all over the world.



Wider Choice of operating curves and sequences. Kyle type H is the only recloser that offers three time-current curves—(A) fast, (B) retarded, (C) extra retarded. You can mix or match 'em almost any way you like—seven possible combinations.

Ask the L-M Field Engineer what others are doing with Kyles. And ask him for a copy of our recloser bulletin. Or write Line Material Company, Milwaukee 1, Wisconsin (a McGraw Electric Company Division).

LM

LINE MATERIAL
Kyle Reclosers

Complete Coordinated Equipment for Distribution Today

SHARIS SMITH, 20-year-old blonde from Wynne, Ark., was chosen Queen Kilowatt I from among 25 contestants at dedication of Arkansas P & L's Hamilton Moses Plant

'QUEEN' CONTESTANTS pose with their m
Campbell, wife of the exposition president.

AP&L PRESIDENT MOSES, left, accepts sc
from W. W. Campbell, president of the Ed

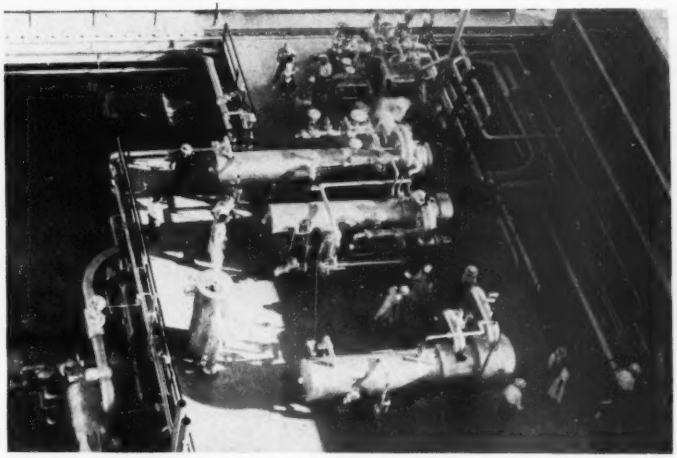
Ham Moses and Queen Kilowatt I . . .

. . . Give you an unbeatable combination for human interest if you're going to dedicate a new generating station. Arkansas Power & Light Co combined the two, made the dedication a chief feature of the first Eastern Arkansas Industrial Expansion Exposition, and brought the whole thing off handsomely. The 132,000-kw plant, at Forrest City, was named for AP&L's colorful president himself. Queen Kilowatt was 20-year-old Sharis Smith, chosen at the ceremony from 25 contestants selected by towns in the area. Her reward: A trip to Cleveland, Washington, and New York. About 5,000 persons came out for the show, despite 102-deg weather. Gov Sidney McMath handled the formal dedication, which came on the eve of Hamilton Moses' 10th year as AP&L head. Incidental note: McMath is expected to seek a third term in 1952; Moses has often been mentioned as a challenger for the office.

before the judging. Seated is Mrs W. W. Sharis Smith is third from right, front row

BLOCK-LONG CIRCUS TENT was setting for dedication of the plant. Ben H. Wooton, president of First National Bank, Dallas, Tex., praised Moses' accomplishments in Arkansas

appreciation of his leadership in the state Arkansas Industrial Expansion Exposition



TOP OF OUTDOOR BOILERS gave cameraman vantage point from which to photograph visitors touring $15 million plant. More than 5,000 came to the dedication, despite heat

ON SIGN, largest in Arkansas, dominates plant entrance. Out- r-type installation, background, was designed so its 132-000-kw capacity can be doubled if necessary. Industrial exposition commemorated plant and the coming of a $10 million natural gas system

The Control Center that OUTSMARTS ACCIDENTS

No longer is it necessary to expose personnel to "hot" buses or to sacrifice safety to gain accessibility to your control centers. Removal and replacement of Westinghouse Starter Units is safe and simple. "Magna-Grip" stab connectors simply "plug-in" to the power bus.

To work on the panel, starter unit may be withdrawn to a tilt-out disconnect position and locked. The unit is "dead" . . . completely disconnected from the power bus and self-supporting in this position. Protection is assured since it is impossible to reach around the starter unit and touch the bus.

For work on the bench, it is a simple matter to remove the complete starter unit. Note that the *unit door remains on the panel* so that it can be closed to guard the exposed bus. Rigid guide rails in the structure facilitate replacement of the starter unit. These rails align the starter and steer the "Magna-Grip" stab connectors into accurate contact with the power bus.

Westinghouse Control Centers offer still more points of safety.

For example:

Complete baffling to localize unusual arcing if faults occur.

Interrupting capacity of each starter not less than 15,000 rms amps.

Self-cooling construction for foolproof ventilation.

Sturdy structures that are self-supporting.

Get all the facts as presented in booklet B-4213 from Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Penna. J-27008

YOU CAN BE SURE... IF IT'S Westinghouse

DESIGN TESTED AND VERIFIED IN THE Westinghouse HIGH POWER LABORATORY

CONTROL CENTERS

Cowlitz Dam Issue Set for Washington Hearing

Exceptions by the City of Tacoma, Wash., to an adverse recommendation made by a Federal Power Commission examiner on the city's application for a license to build two hydroelectric plants on the Cowlitz River will be heard by the FPC Oct. 31 in Washington, D. C.

E. K. Murray, special counsel, and J. Dean Barline, assistant corporation counsel, will represent the city. The commission also will hear testimony from the Washington State Department of Fisheries and Game, the Washington State Sportsmen's Council, Inc, and the FPC staff counsel.

The hearing will be the latest in a number of sessions devoted to the controversial Cowlitz Dam issue.

MEETINGS

Edison Electric Institute
Prime Movers Committee, Statler Hotel, Buffalo, N. Y., October 1-2; Meter Service Committee, Purdue University, Lafayette, Ind., October 1-3; Electrical Equipment Committee, New Ocean House, Swampscott, Mass., October 8-9; Transmission-Distribution Committee, Sheraton Hotel, Rochester, N. Y., October 10-11.

Iowa Utilities Association
Management Conference, Fort Des Moines Hotel, Des Moines, Iowa, October 1-2.

International Association of Electrical Inspectors
Eastern Section, Hotel Claridge, Atlantic City, N. J., October 1-3; Southern Section, Hotel John Marshall, Richmond, Va., October 15-17.

Southeastern Electric Exchange
Engineering-Operation Section Conference, John Marshall Hotel, Richmond, Va., October 4-5; Accounting Conference, Sir Walter Hotel, Raleigh, N. C., October 12-13; Sales Conference, Roosevelt Hotel, New Orleans, La., October 31, November 1-2.

Rural Electrification Administration
Generating-Transmission Cooperatives Conference, Agriculture Department Bldg., Washington, D. C., October 8-12.

Nortional Electrical Contractors Association
Annual Convention, Shoreham Hotel, Washington, D. C., October 8-12.

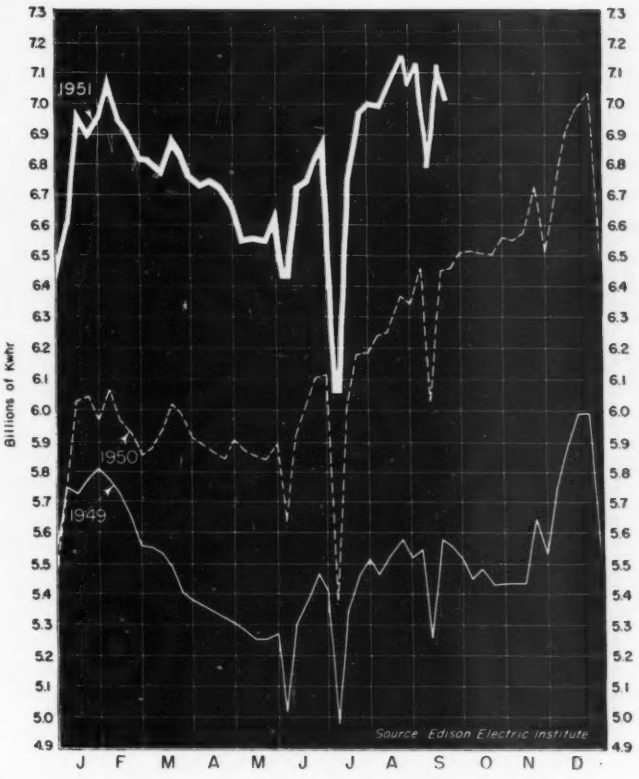
National Farm Electrification Conference
Annual Meeting, Hotel Gibson, Cincinnati, Ohio, October 9-10.

Indiana Electric Association
Annual Convention, French Lick Springs Hotel, French Lick, Ind., October 9-10.

International Association of Electrical Leagues
Annual Conference, Roosevelt Hotel, New Orleans, La., October 10-13.

Pennsylvania Electric Association
Transmission-Distribution Committee, Hotel Concord, Northeast, Pa., October 11-12; Hydraulic Power Committee, Irem Temple Club, Dallas, Pa., October 11-12; Joint Relay-Communications Committee, Emerson Hotel, Baltimore, Md., Octobeer 18-19; Electrical Equipment Committee, Penn Alto Hotel, Altoona, Pa., October 22-23; Meter Committee, Arlington Hotel, Oil City, Pa., October 25-26; Prime Movers Committee, Fort Stanwix Hotel, Johnstown, Pa., November 1-2; Systems Operation Committee, Split Rock Lodge, Split Rock, Pa., November 8-9.

Association of Edison Illuminating Companies
Annual Meeting, The Greenbrier, White Sulphur Springs, W. Va., October 11-13.



Output Week Ended Sept. 22—7,013,950,000 Kwhr

Weekly Output, Millions Kwhr

1951	1950	1949
Sept 22 7,014	Sept 23 6,457	Sept 24 5,556
Sept 15 7,138	Sept 16 6,449	Sept 17 5,579
Sept 8 6,795	Sept 9 6,029	Sept 10 5,258
Sept 1 7,146	Sept 2 6,459	Sept 3 5,544
Aug 25 7,077	Aug 26 6,346	Aug 27 5,523
Aug 18 7,164	Aug 17 6,370	Aug 16 5,579
Aug 11 7,070	Aug 12 6,253	Aug 13 5,530
Aug 4 7,003	Aug 5 6,247	Aug 6 5,466
July 28 7,005	July 29 6,190	July 30 5,518
July 21 6,975	July 22 6,186	July 23 5,462

Percent Change from Previous Year

	Sept 22	Sept 15	Sept 8
New England	+ 3.0	+ 4.1	+ 2.7
Mid-Atlantic	+ 8.9	+ 8.9	+ 9.2
Central Industrial	+ 5.3	+ 6.9	+ 9.1
West Central	+ 8.5	+12.8	+14.3
Southeast	+11.6	+12.8	+12.9
South Central	+12.9	+29.3	+48.9
Rocky Mountain	+ 8.3	+ 3.6	+ 2.0
Pacific Coast	+10.5	+11.8	+12.1
Total United States	+ 8.6	+10.7	+12.7

National Association of Railroad and Utilities Commissioners
Francis Marion Hotel, Charleston, S. C., October 16-19.

Public Utilities Advertising Association
Hotel Cleveland, Cleveland, Ohio, October 18-19.

National Association of Corrosion Engineers
South Central Region Meeting, Robert Driscoll Hotel, Corpus Christi, Tex., October 18-20.

National Electronics Conference
Annual Conference, Edgewater Beach Hotel, Chicago, Ill., October 22-24.

American Standards Association
Annual Meeting, Waldorf-Astoria, New York, October 22-24.

★University of Texas
Power Distribution Conference, Lower Colorado River Authority Auditorium, Austin, Tex., October 22-24.

American Institute of Electrical Engineers
Fall General Meeting, Hotel Cleveland, Cleveland, Ohio, October 22-26.

Electrical Inspectors' Association of British Columbia
Annual Conference, Hotel Georgia, Vancouver, B. C., November 2-3.

Northwest Public Power Association
Accounting Section, Governor Hotel, Olympia, Wash., November 8-9.

National Electrical Manufacturers Association
Chalfonte-Haddon Hall, Atlantic City, N. J., November 12-15.

Wisconsin Utilities Association
Electric-Gas Sections, Sales-Engineering Divisions, Schroeder Hotel, Milwaukee, Wis., November 14-16.

New Jersey Utilities Association
Annual Meeting, Seaview Country Club, Absecon, N. J., November 15-17.

American Society of Mechanical Engineers
Annual Meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., November 25-30.

Pacific Coast Electrical Association
Annual Hawaiian Conference, Royal Hawaiian Hotel, Honolulu, T. H., November 29-30.

★Addition this week.

YIELDS (%) — Operating Electric Utility Securities

Quality	Bonds			Preferred Stocks			Common Stocks		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
DATE									
1951									
Sept. 20	**2.85**	**2.89**	**3.05**	**4.05**	**4.26**	**4.60**	**5.51**	**6.19**	**7.00**
Sept. 13	2.85	2.87	3.03	4.06	4.24	4.57	5.48	6.16	7.01
END OF QTR.									
2nd 1951	3.02	3.11	3.23	4.11	4.37	4.68	5.73	6.38	7.78
1st 1951	2.87	2.93	3.00	3.96	4.19	4.52	5.47	6.20	7.13
4th 1950	2.65	2.67	2.78	3.86	4.14	4.51	5.80	6.54	7.44
3rd 1950	2.66	2.67	2.76	3.81	4.08	4.46	5.70	6.54	7.25

Data: Reis & Chandler, Inc.

Breakup of WWP System Seen If PUD's Buy Utility

Sale of Washington Water Power Co's stock to Washington public utility districts would probably mean disintegration of the WWP system.

This was brought out by recent oral arguments before the Securities and Exchange Commission in Washington. The commission seeks to speed dissolution of American Power & Light Co. which holds WWP stock.

American has proposed it be given until Dec. 31 to ready a deal for sale of the stock to Washington PUD's—thus putting the system in the hands of public power. Electric Bond & Share Co. which holds about 8% of American common, argued that the stock should be distributed immediately to American shareholders—thus retaining WWP as a privately owned utility.

Major barrier to the sale is that the PUD's legally are prohibited from operating the portion of WWP system outside Washington. About 25% of the system is in Idaho.

John B. Dawson, attorney for the three PUD's reported interested in buying the system, indicated during the argument that the Idaho portion could be sold to cooperatives and municipalities in that state.

Robert E. Smylie, attorney general of Idaho, told SEC that such sales as suggested by Dawson would mean breaking the WWP properties in Idaho into 13 pieces. His argument cast doubt over the legality of the sale under such circumstances. Arguing for retention of the system as a whole by distribution of the stock to American shareholders, Smylie said to split it at the Idaho-Washington line would reduce "a very satisfactory utility operation to an uneconomic and unserviceable monstrosity."

A promise to further dismember the WWP system, in event of its sale to PUD's, came from Herbert M. Hamblen, special attorney for the City and County of Spokane, and also representative of a number of civic organizations in Washington, Idaho, and Montana. Hamblen said the City of Spokane will "either construct a competing system or exercise its power of condemnation or purchase" of the portion of the WWP system within its city limits should it fall into the hands of the PUD's."

FINANCIAL BRIEFS

Arkansas PSC has set Oct. 8 for a hearing on a petition by Arkansas-Missouri Power Co to increase its electric rates against Texas Eastern Transmission Co.

Ohio Power Co has received SEC approval to acquire municipally owned generating plant and distribution system of Columbus Grove for $230,000 . . . **Senate** has voted to tax cooperatives on income they do not turn over to members . . . **Long Island Lighting Co** plans to offer common stockholders rights to subscribe to 524,949 common shares on one-for-seven basis. Company will sell competitively about $10 million of preferred stock and about $25 million of mortgage bonds . . . **El Paso Electric Co.** has asked FPC approval to convert all of its authorized outstanding common stock, 381,994 shares, into 763,988 shares. Company will issue certificates to its present stockholders for the extra shares on one-for-one basis.

Allis-Chalmers Manufacturing Co has concluded $40 million bank credit agreement with 25 banks . . . **Missouri PSC** has authorized Gascosage Electric Cooperative of Dixon to buy Sho-Me Power Corp's electric systems in and around seven Phelps and Pulaski County communities.

St Joseph Light & Power Co has asked Missouri PSC to increase electric rates by $344,613 a year.

Electric Utility Financing

Company	Description	Amount of Offering (000)	Offering Price	Yield at Price to Public
	WEEK OF SEPTEMBER 26-OCTOBER 2			
Bonds				
Public Service of Colorado	1st mtg, 1981	$15,000	.....	.....
Idaho Power	1st mtg, 1981	15,000	.....	.....
	SCHEDULED FOR OCTOBER-NOVEMBER			
Bonds			Bid Date	
Arkansas Power & Light	1st mtg	$ 8,000	Oct. 9	.....
Pennsylvania Electric	1st mtg	5,000	Oct. 9	.....
New England Gas & Electric Association	coll tr, 1971	6,115	Oct. 17	.....
Rockland Light & Power	1st mtg	6,000	Oct. 24	.....
Utah Power & Light	1st mtg	9,000	Oct. 29	.....
Ohio Power	1st mtg	15,000	Oct. 30	.....
Ohio Power	serial notes	7,000	Oct. 30	.....
Gulf States Utilities	1st mtg	10,000	Nov. 20	.....
Preferred Stock				
Toledo Edison	50,000 sh	$5,000	Oct. 3*	.....
Pennsylvania Electric	30,000 sh	3,000	Oct. 9	.....
Public Service Electric & Gas	249,942 sh	24,994	Oct. 16*	.....
Common Stock				
Pennsylvania Power & Light	542,484 sh (1-for-7, record Sept. 18, $24)	$13,020	Oct. 3**	.....
Central & South West	500,000 sh	.....	Oct. 16	.....
Public Service of Indiana	325,000 sh (1-for-10, record Oct. 8)	.....	Oct. 22**	.....
Consumers Power	561,517 sh (1-for-10, record Oct. 17)	.....	Nov. 2**	.....
	UNSCHEDULED—UNDER CONSIDERATION			
Preferred Stock				
Pacific Gas & Electric	1.5 million sh, 1st preferred, $25 par	$37,500	.....	.....
Common Stock				
Louisville Gas & Electric	130,000 sh	.....	.....	.....

*Negotiated Sale
**Expiration Date

IN THE INDUSTRY

KEN KOST

There is something inspirational about a PIP workshop conference. To a believer in the investor-owned electric utility industry, such a conference is like a revival to a Protestant or a retreat to a Catholic. It builds his faith in the industry and arms him to go forth to battle the evil forces assailing it.

PIP, in case any of our readers do not know, is the Electric Companies Public Information Program. Its second annual workshop conference was held Sept. 20-21 at Chicago. And like the 1950 conference this was an outstanding industry event. PIP workshops are different from other industry meetings:

PIP Workshops Are Different

First, they are informal. Formal addresses are but a minor part of the program. Everyone gets an opportunity to express himself. Disagreement with the views of the majority or of the conference sponsors is not frowned on but encouraged. That way everybody learns.

Second, a workshop is not for the "top brass." The few top executives present keep out of the way. They may make the formal addresses, but the workshop is definitely not for them. It is for those who actually carry out the policies set by managment.

Third, there is no time wasted glorifying the industry. The conference is based on the premise that the private companies have been doing a good but not a perfect job. The only problem is to determine how the industry can do a better job.

Fourth, instead of just talking about what can be done to aid the industry, the "students" make plans that they can carry out on their return home.

Fifth, most of those attending the workshops are public relations men. If anyone knows what the industry must do to win approval of the public, these men do.

The Job For the Year Ahead

The 200 delegates this year know what their job is for the coming year. Their efforts will be to expose the principal policies by which socialization is being attempted. These are:

1. A growing system of tax-free, government-financed, and politically managed electricity supply facilities which are being built as an administration policy under the guise of aid to conserving water resources.

2. The "preference clause" which by misinterpretation of various acts of Congress is used effectively to deprive the customers of investor-owned electric utilities of the use of energy produced by federal power installations.

3. Exploitation of the national emergency and defense requirements to create the fear of a power shortage by asserting the inadequacy of the industry's present expansion program.

4. Establishment of a permanent status for federal power undertakings intended by Congress and the people to be limited or temporary commitments.

It shall be the objective of PIP not only to oppose these efforts directly by disseminating correct information to the public, but more specifically to counter them by publicizing the constructive activities, plans, and recommendations of the electric utilities throughout the nation.

In addition to aiming at these targets, the conferees are determined to do a few other things. Among them are increasing PIP membership; organizing the regions of the country yet unorganized; and getting all the facts, both good and bad, and interpreting them for employees, stockholders, customers, and the public.

This is a big program for any group to undertake. PIP leaders know and understand this. That's why they would like to have every investor-owned company in their ranks. If the industry is to survive, the sooner all companies join those ranks, the better.

TECHNICAL NOTES

ARCHER E. KNOWLTON

Operators can be misled if they rely on frequency and voltage indications of master recording instruments that stopped where they were when auxiliary voltage for the instrument motors failed.

Poles can be grown in the same length of time that their well-preserved predecessors take to deteriorate; the grower needs to know whether the demand will equal his plantings.

Each megawatt of generating station capacity may require three miles of single conductor of control wiring.

Ash disposal would be alleviated if cement-block producers could be induced to lease a supplementary plant provided by the power company for the operation.

D. C. test of power plant lighting circuits could be ruinous to any 12 or 24 v transformers in use at the time in the boiler for safe illumination of maintenance operations.

Television interference complaints will be more numerous as more sets have in-built or indoor antennas because the signal-to-noise ratio will be lower; similarly as more sets will have been repaired, more or less competently.

An air-cooled generator burned out because of a break in a steam line that ran directly and inadvertently through its air duct.

Unlisted telephone numbers should be changed at intervals; unauthorized members of staff and others learn them despite precautions.

Gas turbine drive will replace four 1200-hp diesels in a British oil tanker, a first in marine propulsion.

Hydro governor pilot-valve maintenance has been reduced where the oil has been filtered micronically and treated with activated alumina.

NEWS ABOUT PEOPLE

S. V. Willson Elected VP by NSP Co of Wisconsin

Stuart V. Willson, former manager of the Faribault division of Northern States Power Co of Minnesota, has been elected executive vice president

S. V. WILLSON

of Northern States Power Co of Wisconsin (EW, Sept. 24, p 71).

Willson has worked for the Minnesota and Wisconsin companies for more than 25 years. He joined the Minnesota utility in 1924 at Minneapolis and a year later went to St. Cloud. In 1926 he went to the Wisconsin firm and served as sales manager of the LaCrosse district until 1940.

Returning to NSP of Minnesota in 1940, Willson was made southwestern division manager at Montevideo. Four years later he was transferred to Faribault as division manager.

Willson has served as vice president and president of the North Central Electric Association.

Whitman H. Rork has been named to succeed Willson at Faribault. He has been sales manager of the division and joined NSP of Wisconsin 22 years ago.

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William J. O'Brien has been appointed secretary of Landers, Frary & Clark, New Britain, Conn. He joined the company in 1927 and became assistant treasurer in 1942.

J. W. Seaman has been appointed assistant general manager of Locke Department of General Electric Co. He has been serving in GE's manufacturing policy division since early this year and previously was manager of manufacturing with the Switchgear Department. Seaman joined GE in 1929.

•

R. A. Gallagher Elected President of the PEA

(*See Front Cover*)

R. A. Gallagher, vice president in charge of industrial relations and rates for Pennsylvania Electric Co, has been elected president of the Pennsylvania Electric Association (EW, Sept. 24, p 71). He succeeds George R. Conover, vice president of Philadelphia Electric Co .

J. M. Huebner, Pennsylvania Power & Light Co; John M. Orr, Duquesne Light Co; and R. G. Rincliffe, Philadelphia Electric Co, were elected vice presidents of the association at its recent annual meeting.

Gallagher, who has been PEA first vice president for the past year, started his utility career with Duquesne Light Co and later went to Alabama Power Co before joining Pennsylvania Electric in 1926 as an accountant and appraisal engineer. In 1930 he was made general auditor and held that position until 1937 when he left the Pennsylvania utility to become treasurer and chief accounting officer of Kentucky-Tennessee Light & Power Co. Returning to Penelec in 1941, Gallagher became vice president in charge of the Keystone division three years later and was named to his present position in 1946.

•

John E. Brock has been named director of research of the Midwest Piping & Supply Co. He will make his headquarters at St. Louis. Before joining Midwest, Brock worked for Westinghouse Electric Corp, Union Electric Co of Missouri, White-Rodgers Electric Co, and Missouri Research Laboratories.

Missouri Utility Advances Kiddoo and Drewelow

Empire District Electric Co, Missouri, has named Robert L. Kiddoo vice president and assistant general manager and Earl J. Drewelow vice

R. L. KIDDOO

E. J. DREWELOW

president in charge of operations (EW, Sept. 10, p 103).

Kiddoo, a vice president of Empire District Electric since 1948, joined the utility in 1935. In the capacity of assistant general manager he will assist in the supervision and general management of the company.

Drewelow came to the company in 1927 after working for Public Service Co of Colorado. He has been in charge of power plant operations and construction of the utility's new plant

(*Continued on page 27*)

START Now with SYLVANIA and stay 'way ahead!

Dramatic, Money-back Campaign lets customers prove for themselves that Sylvania Fluorescent Tubes are better

Here's the most powerful and challenging lighting ad campaign ever launched. Users must be convinced of the better value of Sylvania tubes or get their money back.

Business executives in every part of the country will see this offer in *Time, Business Week, News-week, and other important magazines.* Meantime, powerful full-color ads in the *Saturday Evening Post, This Week* and *American Weekly* will emphasize the unbeatable quality of all Sylvania products. And, coordinated with all the above, Bud Collyer on the nation-wide TV show "Beat the Clock," will tell millions more just why Sylvania Fluorescent tubes stay brighter, last longer.

So, don't delay! Write today for full details on how you can partake *in* and profit *by* this big national effort. Address: Sylvania Electric Products Inc., Dept. L-7210, 1740 Broadway, New York 19, N. Y.

Complete, personalized direct mail campaigns are also offered to all Lighting Contractors who feature this nationally advertised Sylvania emblem.

QUALIFIED
LIGHTING CONTRACTOR
SYLVANIA
SALES & SERVICE

SYLVANIA

FLUORESCENT TUBES, FIXTURES, SIGN TUBING, WIRING DEVICES; LIGHT BULBS; RADIO TUBES; TELEVISION PICTURE TUBES; ELECTRONIC PRODUCTS; ELECTRONIC TEST EQUIPMENT; PHOTOLAMPS; TELEVISION SETS

THE NEW TYPE STS TRANSOCKET

- Contains integral transformers
- Handles heavy loads—up to 400 amperes
- Cuts installation costs
- Compact design—saves space

THE TYPE STU, HEAVY-DUTY METER SOCKET

- Takes standard S-type meters
- Takes up to No. 0000 cable
- Utilizes full inherent capacity of 50-amp meters
- Has removable jaws and terminal assembly
- Compact design—saves space
- Fully automatic circuit closing device

THERE'S A WESTINGHOUSE METER FOR EVERY APPLICATION!

Single-phase watthour meter

Combination polyphase watthour and thermal demand meter

Combination single-phase watthour and thermal demand meter.

Polyphase meter with block interval demand register

Two New Ways
to cut metering costs on heavy loads

Here's a pair of Westinghouse "firsts" designed specifically to cut your metering costs—the STU High Capacity Socket and the new STS Transocket, with integral transformer.

Both sockets are ideal for heavy current applications where it was formerly necessary to devise special metering facilities. They install easily . . . inexpensively . . . and take standard meters. For electric house heating, outdoor pumping installations and many large commercial loads, their cost-cutting characteristics promise important new savings. And these new units are only part of . . .

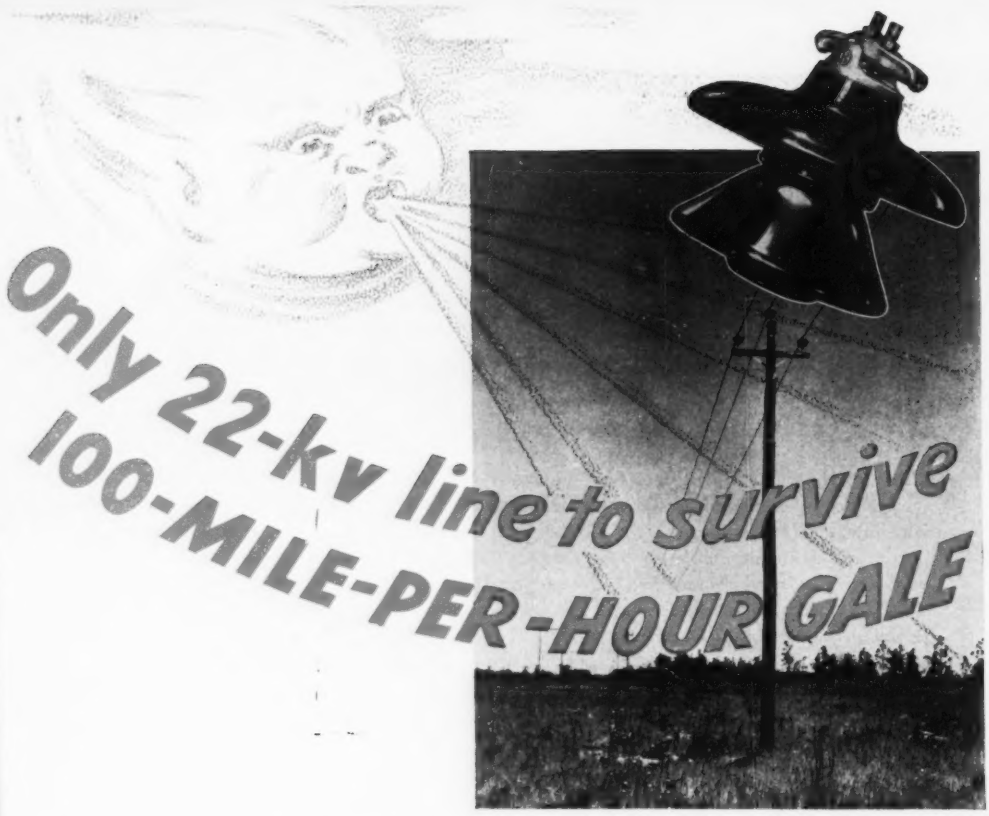
A complete line of metering equipment . . . one that meets all of your present needs . . . and anticipates many of your future requirements!

In the complete line of Westinghouse Metering Equipment you'll find many opportunities for savings. So whether your needs involve metering large loads or small, single or polyphase circuits, kw or kva, Westinghouse is a good place to go.

For complete information on High Capacity Sockets, write for Bulletin CS-42-810. Address: Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania.

J-40396

YOU CAN BE SURE... IF IT'S Westinghouse ... METERS



. . . THANKS TO O-B CLAMPTOPS

● First in the Gulf Coast region to be built with O-B Clamptop insulators in 1938, this 22-kv line sustained the famous 1947 Hurricane with its 100-mile-per-hour winds and was the only line in the district that stayed energized and survived the storm completely undamaged.

Credit for this performance goes, in no small part, to the secure conductor grip provided by O-B Clamptops. By eliminating tie wire failure or slippage, common in hurricanes, supporting poles have only the strain of the wind to resist since the conductor is anchored against movement that would add unbalanced loading to already severe strains. Each span on this line had no more than its own job to do, since it was mechanically segregated.

You may not have hurricanes in your own territory, although high winds are always a hazard. But, similar loads may be imposed by ice or falling objects. Actually, this Gulf Coast experience, in one form or another, strikes home to every power engineer.

When you add the exceptional holding power of O-B Clamptops to such other advantages as major construction savings, safest hot stick handling, and lowest radio interference, you will have a reason for ordering a supply now. From here on, they'll "write their own ticket" on your system.

Ohio Brass

MANSF[illegible] • OHIO

News About People

(*Continued from page 22*)

at Riverton. In his new position Drewelow will be responsible for the production, transmission and distribution, and engineering operations of the company.

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Westerhoff Elected VP by Ford, Bacon & Davis

R. P. Westerhoff has been named vice president and director in charge of the engineering department of Ford, Bacon & Davis, Inc, engineers-constructors.

Westerhoff has been with the firm for 20 years and has had charge of the engineering planning, design, and construction of many steam power plants as well as other types of plants.

•

D. F. McCurrach, assistant vice president of Pacific Power & Light Co, and **George L. Myers,** assistant secretary and assistant treasurer, have retired. Myers joined Pacific P&L in 1910 beginning as private secretary to the company's first president. McCurrach came to Pacific P&L in 1921 after service with the Washington Public Service Commission as chief engineer. A rate expert, he served the utility as assistant general manager in charge of the Washington division and as acting general manager. He became assistant vice president in 1948.

John W. Kushing has retired as chief engineer of the Michigan Public Service Commission and acting director of public utilities. He plans to open offices as a consulting engineer. Kushing served with the PSC for ten years.

Merrill C. Merritt, supervisor of residential sales of the Duluth division of Minnesota Power & Light Co, has been appointed residential and farm sales manager for the utility. He joined Minnesota P&L's sales staff in 1927.

Howard L. Brickey has resigned from the Kansas City bureau of the Associated Press to become editor of Kansas City (Mo.) Power & Light Co's employee publication "Powerlite."

H. A. Walsh Is Named VP of El Paso Electric

H. A. Walsh has been elected vice president in charge of new business

H. A. WALSH

and public relations of El Paso Electric Co, Texas.

Before joining El Paso Electric in 1936 to become general sales manager, Walsh worked for electric firms in Puerto Rico, Port Arthur, Beaumont, and Baton Rouge.

•

W. T. Pavely has been promoted to superintendent of systems operation by Cincinnati Gas & Electric Co. With the utility since 1924 he has served as substation operator, test electrician, member of the general engineering staff, junior test engineer, power supervisor, and senior operating engineer. In other changes the utility named **Sidney Goldsmith** superintendent of electric operating engineering and **W. F. Ford** superintendent of substation construction.

Paul L. Wright has been appointed sales manager of the Buffalo, N. Y., plant of Joseph T. Ryerson & Son, Inc. He has been office manager. Wright joined the company in 1939 and has served as sales representative in Chicago and supervisor of inside sales at Buffalo.

Karl B. Crawford has been appointed general manager of the Lorain-Medina Rural Electric Cooperative at Wellington, Ohio. He has been with the Rural Electrification Administration in Washington, D. C., for the past ten years as head of Regions III, IV, and IX and head of the Power Management Section for the past two years. Before joining REA in 1942 Crawford worked for Ohio Edison Co.

L. C. Kent, illuminating engineer and "dean" of General Electric Co's Lighting Institute at Nela Park, Cleveland has retired. With the company for 38 years, Kent spent 28 of them directing the Institute's activities.

Joseph F. Godwin has been named assistant editor of "Current News," Philadelphia Electric Co publication. He formerly was a member of the staff of "Sunset News."

W. P. Maginnis has been appointed assistant to the vice president in charge of manufacturing operations for Federal Telephone & Radio Corp, Clifton, N. J. He will assist in the coordination of engineering and production activities. Maginnis has been associated with Radio Corp of America for 21 years and most recently as head of components engineering at Camden, N. J.

OBITUARY

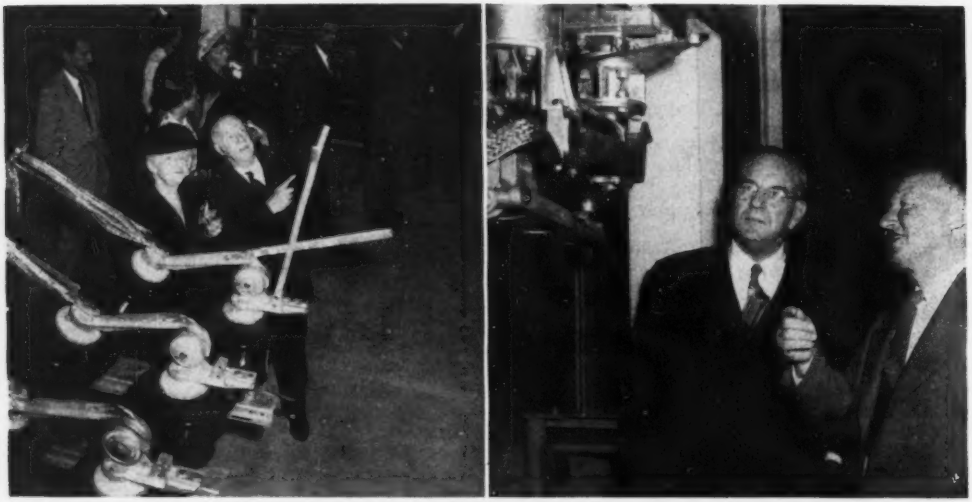
William A. Caswell, General Electric Co engineer, was killed Sept. 9 when his private plane crashed at Spottsylvania, Va. He was on the point of leaving for India, where he was to have had charge of installing turbine units for the company. Caswell formerly worked for Haverhill (Mass.) Electric Co.

William B. Creagmile, 76, retired head of the engineering department of James G. Biddle Co, Philadelphia, died Sept. 12. He had been with the company for 28 years and previously spent 22 years as professor of electrical engineering at Drexel Institute of Technology.

St. Clair Murray, operating superintendent of New York State Electric & Gas Corp's Binghamton division for more than 20 years, died Sept. 16 at Binghamton, N. Y. He had been associated with the utility for 32 years.

George Gover Cousins, 67, illuminating engineer with the Ontario Hydro Commission for 38 years, died Sept. 20 at Port Credit, Ont. He joined the commission in 1912.

MANUFACTURERS and MARKETS



OPEN HOUSE was held recently by Pacific Electric Manufacturing Corp to celebrate opening of its new Santa Clara plant. In panel at left Pres J. S. Thompson points out a feature of the new equipment to his sister, Kathleen Norris, novelist and director of Pacific Electric. A. B. Browne, vice president and general manager of Pacific, right, explains working features of company's air break switch to D. D. Smalley, vice president of operations for Pacific Gas & Electric Co

Westinghouse Building Pittsburgh Warehouse

Westinghouse Electric Corp is erecting a four-story warehouse at East Pittsburgh which will rank among the most modern in the country. The building will be ready for occupancy Jan. 1, 1952.

Among the devices to be used to speed the flow of materials in and out of the building will be specially designed pallet-handling cranes, an electric eye "traffic cop," floating shipping docks that adjust to various truck heights, and a tele-talk communication system for last minute instructions.

Belt conveyors and chains will be used to move goods quickly wherever possible and a special conveyor to handle the paper work will be installed.

Five tram-rail cranes, each with a capacity of two tons, will cover the length of the ground floor to facilitate the loading of trucks and railroad cars. Along one side of the building will be a spur line of the plant railroad and on the south end will be a truck dock capable of accommodating six large trucks.

As materials arrive at the warehouse and are placed on the conveyor belt they will be tagged for delivery to the second or third floors. An electric eye will divert all second floor material and will allow the balance to be carried to the third floor.

•

Refined Copper Stocks Increase During August

Stocks of refined copper held in the United States by members of the Copper Institute, Inc, at the end of August totaled 70,812 tons, an increase of 2,767 tons over the 68,045 tons held on July 31.

During August deliveries to domestic fabricators increased to 105,063 tons compared with deliveries of 101,095 in July. Refined production, however, dropped to 79,613 tons from 93,258.

Outside the United States refined stocks amounted to 161,269 tons on Aug. 31, an increase of 1,797 tons over the 159,472 tons on July 31. August deliveries increased to 83,607 tons from 82,251 in July and refined production was 105,907 tons compared with 104,599.

•

GE Exhibit Train Ends 14-Month Tour of Nation

General Electric Co's "More Power to America Special" exhibit train has reached the end of a 28,000-mile road. The train, which was visited by nearly 200,000 industrialists and business and civic leaders, was exhibited in 166 cities from coast to coast during its 14-month tour.

Workmen at GE's Schenectady (N. Y.) Works are now completing the task of dismantling the ten-car streamliner and its 2,001 exhibits of industrial products and techniques for the production and application of electric power.

The exhibit train was a part of GE's "More Power to America" program aimed at peak national production through maximum industrial electrification.

MANUFACTURING BRIEFS

World mine production of tin in July has been estimated at 13,600 tons by the International Tin Study Group. June production totaled 13,700 tons. Output declined in Indonesia and the Belgian Congo but increased in Malaya and Bolivia. World production of tin metal in July dropped to 12,000 tons from 13,800 tons in June. Tinplate production also declined in July to 438,000 tons compared with 518,000 a month earlier.

Materials shortages have forced General Electric Co and Westinghouse Electric Corp to curtail production of appliances. GE is cutting down production of all small appliances and will cease making roasters and waffle irons. Westinghouse also has announced it would stop producing waffle irons and sandwich grills during the last quarter.

Paramount Pictures Corp will enter the television field with the production of color picture tubes and home color TV sets. A Paramount subsidiary, Chromatic Television Laboratories, Inc, will manufacture a tricolor picture tube. Production is expected to begin in about a month at Chromatic's Connecticut plant.

Production and maintenance workers of Allis-Chalmers Manufacturing Co within the bargaining unit of Local 248 of United Auto Workers, CIO, will receive wage increases totaling $270,000 a year under a revised day rate structure, effective today. Part of the revision provides that maximum time for automatic progression through the rate structure be reduced from 39 to 24 months.

Metal Prices
Sept. 24, 1951

COPPER, Conn., V., lb.	$ .24½
LEAD, N. Y., lb.	.17
ZINC, prime Western, E. St. Louis, lb.	.17½
TIN, Straits, qual. N. Y., lb.	1.03
ALUMINUM, ingot, base price	.19
NICKEL, base price	.56½
STEEL, billets, Pitts., ton	56.00
STEEL, scrap No. 1 heavy, Pitts, ton	45.00

NEW ELECTRICAL CONSTRUCTION

A weekly selection of U. S. electrical construction projects announced by private and government utility systems involving more than $70,000. Also listed are major industrial and construction jobs where electrical work is indicated or implied

UTILITIES

Proposed Construction

Calif., Muroc—U. S. Eng., 751 S. Figueroa St., Los Angeles, exten. electrical distr. systems at Edwards Air Force Base, Eng 04-353-52-16, $200,000.

Colorado—Bureau Reclamation, Dpt. Interior, Estes Park, Colo., constr. 9.5 mi. Estes-Pole Hill 115 kv transmission line, Colorado Big Thompson Proj., Spec. DC-3540. L. N. McClellan, Bldg. 1-A, Denver Federal Center, Denver, Colo., ch. engr.

Fla., Madison—Florida Power Corp., 101 S. 5 St., St. Petersburg, power plant on Suwannee River, near here, $6,000,000.

Mich., Crystal Falls—Wisconsin-Michigan Power Co., M. G. Gorrow, gen. mgr., 2nd Proj., hydro electric power plant, incl. dam, Michigamme Falls, **$500,000.** Mead & Hunt, 550 State St., Madison, Wis., consult. engrs.

Missouri—Central Missouri Electric Cooperative, Milan, 140.9 mi. rural distr. lines, Linn, Putnam and Sullivan Counties, $175,000, Frank Horton & Co., Lamar, engrs.

Missouri—Northwest Electric Power Cooperative, Cameron, 40,000 kw. steam power generating plant at Missouri City and 257 mi. 157 KV and 505 mi. 69 KV rural distr. lines, $5,477,000.

N. J., Trenton—Dpt. Navy, P. Wks. Office, Phila. Naval Base, Phila., Pa., plans by Frank Grad & Sons, 11 Commerce St., Newark, N. J., and Burns & Roe Inc., 233 Broadway, New York, N. Y., naval aero turbine laboratory additional facilities $8,400,000.

N. Y., Baldwin—Bd. Educ., Union Free School Dist. 10, Baldwin High School, Baldwin, emergency electric plants for Baldwin Public Schools.

N. C., Holly Ridge—State Dpt., 21 St. and Virginia Ave., N.W., Wash. 25, D. C., Voice of America Broadcasting Station on Old Camp Davis site in Onslow Co. near Pender Co. line, 30 mi. north of Wilmington, 4 sq. mi. area, 5,000,000 watts, near here.

O., Columbus—Ohio State University, Howard Bevis, pres., N. High St., television station, $250,000.

Oklahoma—Central Rural Co-operative, Stillwater, Okla., 408 mi. rural distr. lines, Lincoln Co. $406,000. W. R. Holway, 302 E. 18 St., Tulsa, consult. engr.

Oklahoma—U. S. Eng., Box 61, Tulsa, distribution centers and lighting transformers at Tenkiller Ferry Dam. Approx. $200,000.

Oregon—U. S. Eng., Bldg. 602, City-County Airport, Walla Walla, Wash., cable trays and appurtenances for McNary Dam power house, Civeng 45-164-52-19.

South Dakota and Iowa—Bureau Reclamation, Dpt. Interior, Huron, S. D., construct Fort Randall-Sioux City 230-kilovolt transmission line, Transmission Div., Missouri River Basin Proj. Spec. No. DC-3546.

Tex., Dallas—U-H-F Television Co., c/o H. H. Coffield, Rockdale, television station. $150,000.

Tex., Fort Worth—City, City Hall, voted bonds, street signs sys., $250,000; electric traffic signal sys., $450,000; street lighting, $500,000; fire dpt. electric alarm sys. exten., imprvs., $500,000. C. M. Thelin, Dir. P. Wks. Eng.

Tex., Houston—U-H-F Television Co., c/o H. H. Coffield, Rockdale, television station. $200,000.

Tex., San Antonio—U-H-F Television Co., c/o H. H. Coffield, Rockdale, television station. $100,000.

Wash., Aberdeen—Office of Public Affairs, State Dpt., 21 St. and Virginia Ave., N.W., Wash., 25, D. C., 2 story transmitter bldg., beam antenna, etc. for Voice of America Radio Station. $5,000,000.

Wash., Richland—General Electric Co., Richland, operator of Hanford Works for Atomic Energy Comn., alter gate house, bldg. movable patrol house, lay 140 ft. b. conc. sidewalk etc. in Hanford Works "700" area.

Wis., Green Bay — Wisconsin Public Service Corp., Green Bay, steam power plant, $12,000,000. incl. equip.

Alaska, Ketchikan—City, City Hall, exten. municipal electric sys. $1,000,000.

British Columbia — British Columbia Power Comn., Victoria, B. C., power transmission line, Clowhom Falls to Sechelt, $250,000; power transmission line Campbell River to Duncan Bay, $970,000.

Low Bidders & Contracts Awarded

California—Merritt-Chapman & Scott Corp., 17 Battery Pl., New York, N. Y. and Savin Constr. Corp., 10 Village St., East Hartford, Conn. Folsom Dam and appurtenant works, $29,444,000. Folsom Reservoir, in American River, Serial No. Civeng. 04-167-51-1 California. U. S. Eng. 1209 Eight St., Sacramento, Calif.

Colorado—Adler Constr. Co., Loveland, Colo., LB $825,380, Rattlesnake Dam, Estes Park-Foothills power aqueduct, Colorado-Big Thompson Proj., Spec. DC-3503. Bureau Reclamation, Dpt. Interior, Loveland, Colo. Bids Sept. 12.

Ga., Savannah—Stone & Webster Eng. Corp., 49 Federal St., Boston, Mass., CA. Approx. $1,000,000. Riverside Electric Power plant addn. Savannah Electric & Power Co., 27 W. Bay St., Savannah, Ga.

Ill., Chicago—Wendnagel Co., 600 W. 22 St., Chicago, Ill., CA $400,000, 34,000 sq. ft electric furnace bldg. on plant premises, 1000 W. 120 St., Chicago, Zone 28. Borg-Warner Corp., Ingersall Products Div., 310 S. Michigan Ave., Chicago 4, Ill. Johnson & Johnson, 111 W. Washington St., Chicago, 2, Ill., archts. Awarded Sept. 4.

Kansas—Co-operative Electric Power & Light Co., Iola, Kan. Force Account. $110,000. 60 mi. rural distr. lines, single-phase, Allen, Neosho, Woodson, Wilson and Coffey Counties.

North Carolina—Harrison Constr. Co., 1101 Western Ave., Pittsburgh, Pa., CA. Approx. $500,000. 8th hydro-electric plant on east fork of Tuckasegee River, Jackson Co., Nantahala Power & Light Co., Franklin, N. C.

Tex., Colorado City — Texas Electric Service Co., Colorado City, Tex. Own Forces. Approx. $785,000. Doubling capacity electric power plant.

Tex., Dallas—Dallas Power & Light Co., Dallas Power & Light Bldg., Dallas, Tex., Force Account. $200,000. New unit of transformers; $70,000. street lighting, overhead transmission line imprvs.

INDUSTRIAL, COMMERCIAL & PUBLIC BUILDINGS

Proposed Construction

Ark., Little Rock—Spartan Aircraft Co., 1900 N. Sheridan Rd., Tulsa, Okla., aluminum plant, $102,000,000.

Calif., Palmdale — Lockheed Aircraft Corp., 2555 N. Hollywood Way, Burbank, jet aircraft assembly plant for Air Force at Palmdale Airport. $12,615,000.

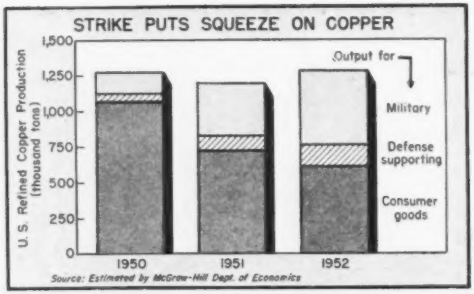
Tex., Houston—Southern Builders, Inc., 1200 Givens St., shopping center, 600x1,880 ft., masonry main bldg., on 26-acre tract, Holmes and Griggs Rds. $20,000,000-$25,000,000.

Low Bidders & Contracts Awarded

Ill., Tinley Park—Walsh Constr. Co., 140 N. Dearborn St., Chicago 2, Ill., CA, $20,000,000, mental hospital, Cook Co., County Bldg., Chicago 2, Ill. Bids May 15, awarded Aug. 14.

Mo., Kansas City—Frank Morell Constr. Co., G. F. Morell, pres. Scarsdale, N. Y. Owner Builds. $2,500,000. 245 dwellings and business center on 60 acre site outside city limits.

Electrical Business Outlook



STRIKE EFFECTS will keep 1951 copper output from matching last year's. This explains the cut in fourth quarter allocations. More important early 1952 isn't expected to be much better

Another Look at Metals

The copper strike has changed the outlook for metal supplies. Copper—not steel—will be the worst bottleneck for the next six months. And the squeeze will be tighter than anyone had thought.

The strike cost 40,000 tons of copper—equivalent to half a month's production. And there's no way to make it up even with all mines operating near the limit. There's talk of making 25,000 tons available from the government stockpile. But only 10,000 tons have actually been allocated.

In addition to the strike at U. S. mines, refining operations have been affected by a decline in imports—particularly during the dock strike in Chile—and difficulty in getting copper scrap.

Fabricators Exhausting Copper Stocks

Altogether, the refiners sent the fabricators only 105,000 tons of copper in August and not much more in September. Fabricators have been using 110,000 to 115,000 tons a month. They've had some stocks to use up. But they're virtually exhausted now.

All this explains why deliveries of fabricated copper and brass products in the fourth quarter will be behind schedule. With military needs increasing, it's little wonder NPA ordered severe cuts in other uses.

There's a fair chance that mine output will recover enough for fabricators to get 110,000 tons per month by the end of the year. And sometime in the first quarter, supply should be about equal to the recent rate of refined copper consumption. That's if no more is taken for the stockpile. The government hasn't bought since July, but no one knows when it will go back in the market.

In short, there are six very tight months ahead for copper consumers. NPA will be trying to ration an inadequate supply. And many industries will be hurt. First quarter 1952 allocations for consumer durables are likely to be even lower than the fourth quarter since military requirements are increasing rapidly.

Outlook Is Not Bright

Looking further ahead, the picture's still not bright. Refined copper output in 1952 won't be much ahead of 1951 (chart). Military needs will be bigger. And preliminary estimates indicate that defense-supporting programs will too.

However, there is a chance that the really essential programs, like utility construction, can get more copper as 1952 wears on. Trade experts say a lot is still going into inessential uses and into invisible inventories of parts for manufactured goods. If CMP really gets working and more effective controls are put on residential construction, the situation may improve.

More Steel but Not More Structural Shapes

Steel production—unlike copper—is still pointing toward a substantial increase over the next six months. The trouble is that not enough of the new ingot production can be converted into structural shapes, the tightest item right now. Steel mills just don't have that kind of fabricating capacity. And any new structural rolling mills planned are many months away.

For some kinds of construction—particularly commercial and institutional—it makes no difference. They couldn't get the necessary copper anyway. But in the case of industrial and utility construction, the shortage of structurals means a slowdown well into 1952.

Some types of steel—bars and sheets, for example—may be a lot easier by then. But structurals, plates, and pipe will stay tight. They're needed in programs like oil and gas expansion, machine tools, and atomic energy construction, which are scheduled to rise through the third quarter of next year.

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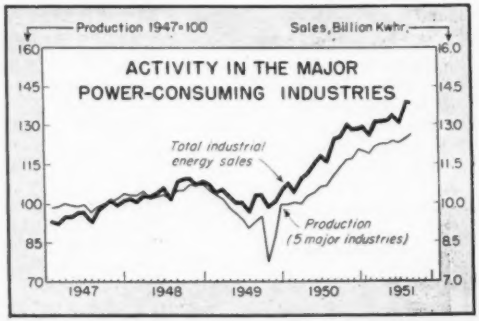

INDUSTRIAL PRODUCTION generally goes up in August and September. The average for five big power consumers increased despite strikes in the nonferrous metals industry

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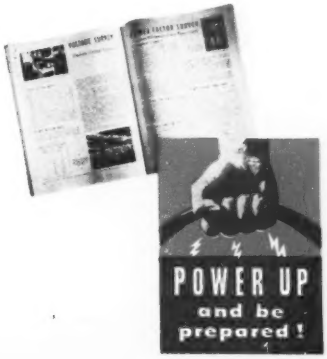

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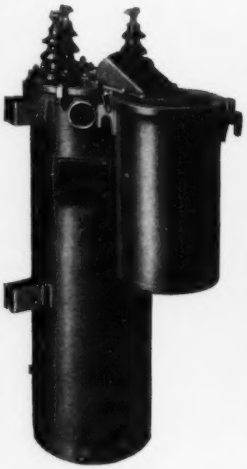

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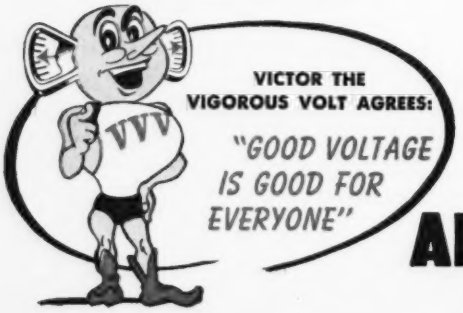

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